

CLAIMS

Sub
B2

1. A method for formatting a sequence of video images comprising the steps of:

5 encoding successive images of the sequence according to a predetermined coding scheme in which some images of the sequence are intra-coded, without reference to any other image of the sequence, and the remainder are respectively coded with reference to at least one further image of the sequence;

10 formatting the encoded data for each image into one or a sequence of data blocks and outputting a data block stream formed of the data block or blocks from successive ones of the sequence of video images;

15 characterised in that the step of formatting comprises the further steps of identifying intra-coded frames and of inserting additional data blocks in said data block stream, each of said additional blocks carrying data identifying the relative location in the data block stream of the first or only data block of an intra-coded image frame.

20 2. A method as claimed in Claim 1, wherein a single additional data block is inserted in said data block stream at fixed periodically repeated intervals.

25 3. A method as claimed in Claim 1, wherein each additional data block stores data identifying the first or only data block in the data block stream of the closest previously formatted intra-coded image frame.

Sub C2
4. A method as claimed in Claim 3, wherein each additional data block stores further data identifying the length of the said closest previously formatted intra-coded image frame.

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Sub D3
5. A method as claimed in Claim 1, wherein the image frames are encoded in accordance with MPEG standards and all data blocks in the data block stream are of a common size.

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Sub B3
6. A storage device capable of being sequential read and carrying an encoded and formatted sequence of video image frames wherein some images of the sequence are intra-coded, without reference to any other image of the sequence, and the remainder are respectively coded with reference to at least one further image of the sequence, and the encoded data for the succession of image frames is formatted into a sequence of data blocks, with at least one data block per encoded image frame, with the stored sequence of data blocks including additional data blocks, with each such additional data block identifying the storage device storage location of the first or only data block of an intra-coded image frame.

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Sub C7
7. A storage device as claimed in Claim 6, wherein the said additional data blocks are provided at fixed periodically repeated intervals within the stored sequence of encoded image data blocks, and all data blocks are of a common size.

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8. A storage device as claimed in Claim 6, wherein each said additional data block contains data identifying the storage device storage location of the first or only data block of the closest previously formatted intra-coded image frame.

Sub E4
9. A storage device as claimed in Claim 8, carrying at respective separate storage locations auxiliary data associated with

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respective encoded image frames and each said additional data block further carries data identifying the storage device storage location of the auxiliary data associated with the particularly indicated intra-coded image frame.

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10. A storage device as claimed in Claim 8, in the form of an optical disc, wherein the said additional data blocks identify the location of the first or only data block of the closest preceding intra-coded image frame in terms of the location on disc at which said data block is stored.

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Sub B4
11. An encoder apparatus operable to implement the method of Claim 1, said apparatus comprising means for encoding successive images of a video image sequence according to a predetermined coding scheme in which some images of the sequence are intra-coded, without reference to any other image of the sequence, and the remainder are respectively coded with reference to at least one further image of the sequence;

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means for formatting the encoded data for each image frame into one or a sequence of data blocks and outputting a data block stream formed of the data block or blocks from successive ones of the sequence of video images, said means for formatting being operable to identify intra-coded frames, and being configured to insert additional data blocks in said data block stream, each of said additional blocks carrying data identifying the relative location in the data block stream of the first or only data block of an intra-coded image frame.

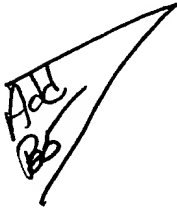
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12. A video image player configured to receive and read the sequence of data blocks from a sequentially-readable storage device as claimed in Claim 6, said player comprising a decoder arranged to receive

the stream of data blocks, decode the image data and output a sequence of video image frames, said player being operable to output selected ones of said sequence in a fast-forward or fast reverse mode, the player comprising means for selecting frames by selecting every N^{th} additional data block and displaying the respectively identified intra-coded image frame.

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